

Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040)

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Packaging of Crate 19



REDOX fan removal



Old Pump



New Pump

***Diesel pumps to be replaced by Project L-626, "100B
Export Water System Reliability Enhancements"***

Overview

This section addresses Project Baseline Summary (PBS) RL-0040, Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford. There are three major components to this work scope:

- Central Plateau Deactivation & Decommissioning (R. E. Wilkinson),
- Waste Sites Remediation (B. H. Ford), and
- Reliability Projects (R. G. Slocum).

NOTE: Unless otherwise noted, all information contained herein is as of the end of August 2007.

Notable Accomplishments

Central Plateau D&D

200-UW-1 U Plant Zone Waste Site Remediation

- Justification of the STOMP model (Volume I) is complete and was transmitted to RL.
- The Remove, Treat, and Disposal (RTD) Technical Basis document (Volume II) is in final editing and will be in the Integrated Document Management System (IDMS) the week of September 17, 2007, and transmitted to RL week of September 24, 2007.
- 241-U-361 sampling is expected to be completed the week of September 24, 2007.

200 North Sites – RTD

- Site N-7 completion report sent to U.S. Environmental Protection Agency (EPA) and RL for review.
- Site N-7 backfill was completed on August 30, 2007.

221-U Facility Canyon

- Incorporated regulator review comments on the remedial design/remedial action work plan (RD/RAWP).
- EPA has extended the period for its review of RL responses on a draft Tri-Party Agreement-in-principle (AIP) for Central Plateau facility disposition by an additional 90 days until November 19, 2007.

212-N Facility

- As of September 17, 2007, all 15 crates had been wrapped, loaded, and shipped.

PUREX and Canyons

- Incorporated FH internal review comments on the Multi-Canyon Project Management Plan draft.
- Incorporated FH internal review comments on the PUREX Data Quality Objectives (DQO) document.

REDOX Facility

- REDOX EF-1 motor base plate has been disconnected and removed. Exhaust fan and motor base areas have been cleaned and prepared for installation of new units.

Waste Site Remediation

- Completed drilling, sampling and geophysical logging at the A-21 borehole.
- Completed backfill and sealing of the A-21 borehole.
- Installed and logged twenty-four direct push holes at 200-BC-1.
- Delivered Draft A of the 200-PW-1/3/6 Proposed Plan to RL (TPA Milestone: 9/30/07).
- Completed Draft B of the 200-CS-1 Feasibility Study; transmittal in progress (regulatory commitment).
- Completed downposting survey of the eastern portion of the BC control area.

Notable Accomplishments, continued

Reliability Projects:

- Completed cost estimate to bring 4732A Building (storage building for materials collected under the cultural, historic, and preservation laws) into compliance with federal regulation 36 CFR 79.
- Continued progress on current year reliability projects:
 - Completed L-396, *Roof Rehabilitation*, Phase I repair and replacement of roof membranes on buildings 609, 609G, and 3709A and completed Phase II definitive design on three additional roof replacements (M0-414, 2719WB, and 2721E).
 - Continued installation of the raw water distribution line in the 100B area to provide fire protection to the 181B facility (L-626, *100B Export Water System Reliability*).

FY 2007 Funds vs. Spend Forecast (\$M)

	Projected FY 2007 Funding	FY 2007 Fiscal Year Spend Forecast	Variance
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$ 74.5	\$ 63.6	\$ 10.9

Schedule/Cost Performance (\$M)

Nuclear Facility D&D, Remainder of Hanford	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY07/ CTD)
Current Period (Month)	\$11.6	\$8.8	\$8.9	-\$2.8	-24.2%	-\$0.1	-0.9%	\$66.0
Cumulative-to-Date (FY 2004-Present)	\$247.5	\$243.2	\$240.7	-\$4.3	-1.7%	\$2.6	1.1%	\$325.8

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance (-\$4.3M/-1.7%):

The negative schedule variance (SV) for the Central Plateau D&D Project (CP D&D) organization (-\$0.4M) is due to:

- Delays in Remediation Project phase II U-361 Tank sampling and analysis due to subcontractor equipment failure, and delays in vadose zone characterization and Treatability Test Plan due to critical resources working on remedial action goals which is considered a higher priority (-\$1.0M).
- Delays in CP Project Management and Support procurement/installation of the decon and shower trailers (-\$0.3M).
- Offset by D&D demolition of three structures completed in FY 2006, and budgeted in September 2007 (+\$0.9M).

Schedule/Cost Performance (\$M), continued

CTD Schedule Performance, continued:

The unfavorable SV in Waste Site Remediation (-\$3.7M) is due to the following:

- Delays in field work tied to CW-1 characterization due to lack of Washington State Department of Ecology (Ecology) approval of the sampling analysis plan (SAP) (-\$1.2M). Majority of this work is being carried over to FY 2008.
- Delays in drilling of the 200-MW-1 A-2 borehole and subsequent sample analysis due to delayed regulator approval of the SAP, and slow drilling progress through high-rad zones (\$-1.0M); recoverable in FY 2008; no impact to milestone completion date.
- Delays in 200-BC-1 in starting environmental restoration contract (ERC) validation field work due to additional time needed to implement the "Expert Panel" recommendations on the DQO and SAP and work scope added through the DQO and SAP that requires a Baseline Change Request (BCR) for the additional sampling (-\$0.2M); BCR in process to re-plan scope and schedule into FY 2008.
- Delays in engineering studies (-\$0.3M). No impacts; studies are being replanned to FY 2008.
- Other miscellaneous delays (-\$1.0M).

The unfavorable SV for Reliability Projects (-\$0.2M) is primarily due to the following:

- Project L-614, *Repeater Sites Safety Renovation*, National Environmental Policy Act (NEPA) and cultural review delays (-\$0.8M).
- Delay in implementing DOE Order 430.1B, *Real Estate Property Management* (-\$0.2M).
- Partially offset by ahead of schedule capital equipment procurements (+\$0.8M).

CTD Cost Performance (+\$2.6M/+1.1%):

The favorable cost variance (CV) for CP D&D (+\$3.3M) is primarily due to the following factors:

- Prior year cost overruns in Remediation Projects (-\$3.8M) resulting from:
 - Additional direct push sampling during field investigation to determine contamination levels.
 - Greater than planned effort to resolve Feasibility Study/Planning Package (FS/PP) comments and Remedial Design SAP.
 - Delays in barrier construction without reductions in staffing levels.
 - Lateral spread of contamination at 200-W-42, resulting in more waste containers being shipped to ERDF than planned.
 - Higher than planned sampling costs for 200 North Remove, Treat and Disposal (RTD) Waste Sites.
- Prior-year efficiencies in CP Surveillance and Maintenance in staffing resulting from not replacing budgeted staff and loaning labor to higher priority projects within D&D. Also due to lower than planned corrective maintenance in prior years for 209E and B Plant (+\$2.9M).
- Prior and current year variance distributions (passbacks) in CP Project Management and Support (+\$4.2M).

CV for Waste Site Remediation (-\$1.3M) is due mainly to the following:

- 200-PW-2/4 – Prior year unplanned costs associated with the A-10 borehole contamination (sample, equipment, shipping costs); Prior year unplanned data compilation and large number of regulator comments on the RI Report (-\$1.0M).
- 200-PW-1/3/6 – Prior year costs associated with the Z-9 vertical borehole due to unanticipated high contamination levels and the discovery of carbon tetrachloride in the drill cuttings (-\$2.4M).
- 200-LW-1 – Prior year costs associated with unexpected costs associated with drilling the S-20, T-28, and Z-7 boreholes; additional costs associated with expedited analytical processing necessary to support FS schedule (-\$1.6M)
- Offset by favorable variances due to variance distributions (+\$3.7M).

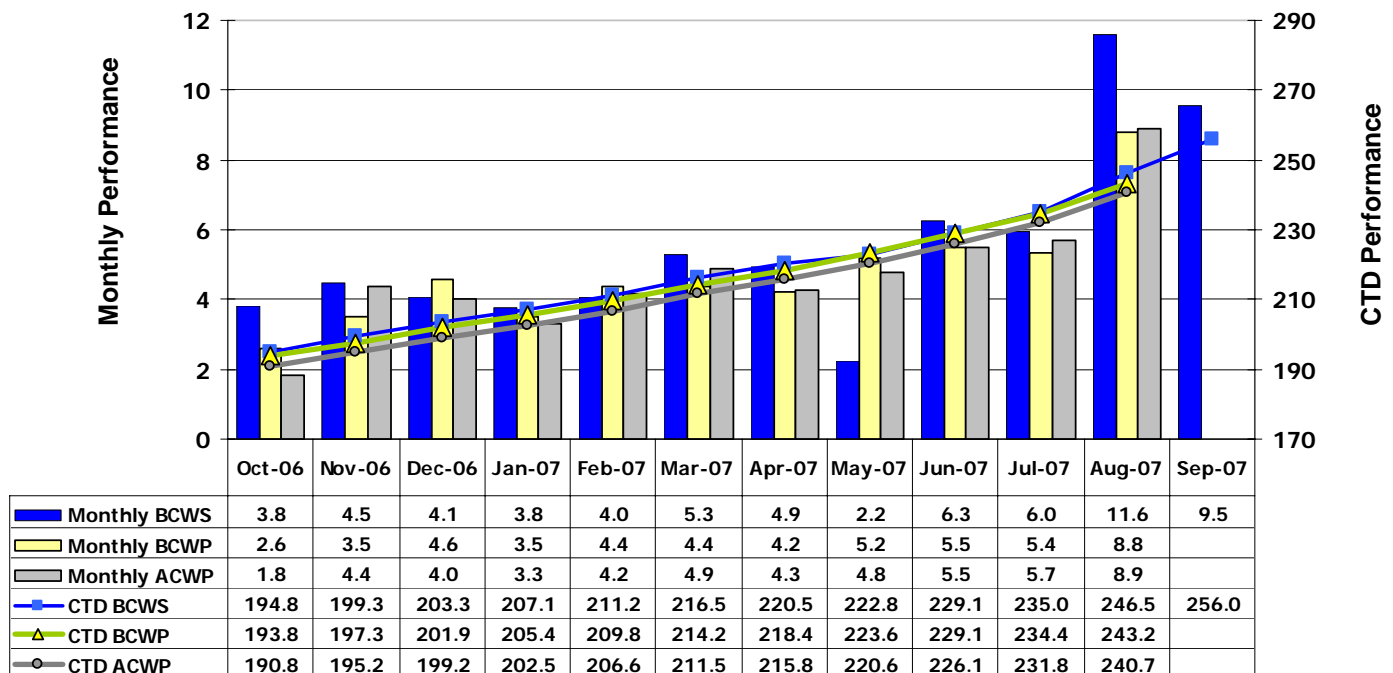
Schedule/Cost Performance (\$M), continued

The unfavorable CV for Reliability Projects (-\$0.1M) is primarily due to the following factors:

- Increase in steel prices for prior-year facility and water projects (-\$2.7M).
- Prior year telecommunication projects technology delays (-\$0.6M).
- Offset by underruns in Project L-325, *A-8 Substation*, (+\$1.5M), capital equipment procurements (+\$1.0M), road refurbishments (+\$0.7M).

The favorable CV for Closure Services (+\$0.6M) is within established thresholds.

Performance Analysis CTD and Monthly (\$M)



Milestone Achievement

Number	Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
M-015-45A	Submit 200-PW-1 OU Remedial Investigation Report	TPA	10/31/06	9/28/06		Completed ahead of schedule
M-091-40L-012	Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2007)	TPA	12/1/06	11/10/06		Completed ahead of schedule
M-091-40L-013	Quarterly Burial Ground vent/substrate sampling results (2nd Qtr 2007)	TPA	3/15/07	2/12/07		Completed ahead of schedule
M-13-50 CPDD-07-012	Draft A RI work plan for supplemental waste site characterization	TPA	3/31/07	3/14/07		Completed ahead of schedule
CPDD-07-011	Project Execution Plan reflective of an integrated groundwater source approach	RL	3/31/07	3/28/07		Completed ahead of schedule
CPDD-07-009	Draft "A" Excavation Treatability Test plan (including SAP) for the 200 Area BC Cribs and Trenches	RL	5/31/07	5/24/07		Completed ahead of schedule
M-091-40L-014	Quarterly Burial Ground vent/substrate sampling results (3rd Qtr 2007)	TPA	6/15/07	6/13/07		Completed ahead of schedule
CPDD-07-001	Safety basis document defining appropriate controls to allow disposition of U Plant Cell 30 tank contents	RL	6/30/07	6/11/07		Completed ahead of schedule
CPDD-07-002	Ten High Risk Industrial Facilities Demolished to Slab on Grade	RL	6/30/07	2/12/07		Completed ahead of schedule
CPDD-07-003	U Plant Canyon Facility Waste Acceptance Study	RL	6/30/07	6/25/07		Completed ahead of schedule
D&D-07-001	U Plant Accelerated Closure Engineering Studies		6/30/07	6/25/07		Completed ahead of schedule
M-13-27 CPDD-07-014	Submit a revised RI/FS Work Plan for the 200-IS-1 and 200-ST OUs	TPA	6/30/07	6/13/07		Completed ahead of schedule
CPDD-07-005	Three 200-CW-3, 200 North Cooling Water Group, waste sites remediated under the remove, treat, and dispose alternative	RL	7/31/07	7/25/07		Completed ahead of schedule
M-091-40L-015	M-91-40L.4C Quarterly Burial Ground vent/substrate sampling results (4th Qtr 2007)	TPA	9/15/07	7/16/07		Completed ahead of schedule
M-015-45B CPDD-07-006	Submit Draft A Feasibility Study and Proposed Plan for the 200-PW-1/3/6 Operable Unit Group.	TPA	9/30/07	9/14/07		Completed ahead of schedule
CPDD-07-007	Central Plateau Cleanup and Configuration Control Specification document	RL	9/30/07			On schedule
M-13-28 CPDD-07-013	Submit a revised RI/FS Work Plan for the 200-SW-1 and 200-SW-2 OUs	RL	9/30/07			On schedule
CPDD-07-004	212-N nuclear facility hazard reduction and downgrade completed	RL	11/30/07		10/8/07	Forecast ahead of schedule
CPDD-07-0010	Complete phase one of the BC Cribs and Trenches Treatability Test Plan	RL	11/30/07			On schedule
M-091-40L-016	M-91-40L.4.D Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2008)	TPA	11/30/07			On schedule
CPDD-07-008	Complete Construction of Project L-626, 100B-A Water System Enhancement	RL	12/31/07		12/15/07	Forecast ahead of schedule